REMARKS

Entry of the foregoing amendments is respectfully requested.

Pages 2, 4 and 8 of the specification have been amended to correct certain errors. The errors on pages 2 and 4 concern the color of the polymer composition as the concentration of Ti^{3+} increases. Specifically, the present application concerns a polymer composition composed mainly of a titanium oxide based polymer, having the formula $TiO_x(OH)_y(H_2O)_z$ wherein the titanium is in the oxidation state III or IV. The composition of the polymer $TiO_x(OH)_y(H_2O)_z$ wherein the titanium is in the state III can be obtained by direct reduction of a compound wherein Ti in the state IV, and said compound may be a polymer $TiO_x(OH)_y(H_2O)_z$ wherein the titanium is in the oxidation state IV. During the reduction reaction, the proportion of Ti^{4+} decreases in the reaction medium, and the proportion of Ti^{3+} increases. A reaction medium which contains only Ti^{4+} and no TI^{3+} is translucent. When at least part of the titanium is Ti^{3+}, the reaction medium is colored.

The specification originally stated (page 2, lines 33-35): "the coloration changes with the proportion of Ti^{3+}. It goes from violet, in the case of low Ti^{3+} concentrations to green in the case of high concentrations." Actually, the coloration of the reaction medium changes from green (at the beginning of the reduction reaction) when the concentration of Ti^{3+} is low, to violet at higher Ti^{3+} concentrations at the end of the reduction reaction. The attached Figure 1 in color shows the evolution of the absorption rays of a medium containing initially a Ti^{4+} compound, depending on the reduction time. The initial concentration of Ti^{4+} is 0.05 M/L. When the medium is submitted to reduction by irradiation, it goes from the translucent state

to yellow, then to red (433 nm), then it goes to translucent again, before going to green, then progressively to dark blue.

The initial medium contains oxygen traces. When the medium is subjected to reduction, reduction of oxygen occurs first, giving an intermediate peroxo type compound, then reduction of Ti^{4+} into Ti^{3+} occurs. The peroxo compound is characterized by an absorption ray at 433 nm corresponding to a coloration which goes from yellow to red. Ti^{2+} absorbs from 540-550 nm (as shown in Example 4 of the specification and on the attached Figure I). At the beginning of the reduction of Ti^{4+}, the Ti^{3+} concentration is very low in the medium, and the blue coloration provided by Ti^{3+} combines with the yellow coloration provided by the peroxo compound, giving a green coloration. Then, when the Ti^{3+} concentration increases, the blue coloration becomes dominant over the yellow coloration, and the reaction medium becomes dark blue. Accordingly, the corrected pages now accurately reflect the color changes.

A typographical error in the table on page 8 has been corrected. The correct value of 1.71 is shown in the corresponding PCT Application, PCT/FR03/00106.

Favorable consideration of the subject application is respectfully requested.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: March 25, 2005

By: _____
George F. Lesmes
Registration No. 19,995

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620